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SOURCE

Radio, No 7, pp 46-48.

## SOVIET KINESCOPES

Of the cathode-ray tubes with magnetic focusing and magnetic deflection produced by Soviet industry, the 18LK15, 23LK1B, and 3LK1B are designed for direct viewing; the 10LK2B is a projection-type tube; the 13LK1B is a pickup tube for television cameras; the 18LK2B is used to photograph images; and the 23LK2B is used in the video monitor unit.

The basic data for all these tubes is given in the appended table, and their dimensions and base diagrams are also appended. The data cited in the table for the IOLKZB and 13LK1B tubes is preliminary. The bases of the 23LK1B and 31LK1B tubes have only pin numbers 2,  $^{1}_{4}$ , 6, and 8, to which the electrodes are connected. All those tubes have white pattern color with medium persistence.

The resolving power (definition) of 625 lines is obtained over the entire screen with the 18LK2B and 23LK2B tubes, and over a circle 70 mm in diameter located in the center of the screen with the 10LK2B and 13LK1B tubes. The 625-line definition holds only for the center of the screen with the 18LK15, 23LK1B, and 31LK1B tubes.

In using these cathode-ray tubes, one should keep in mind that the use of anode voltages higher than those given in the table may lead to breakdowns between electrodes and a reduction in the life of the cathode. Both a decrease of anode voltage and a decrease in filament voltage accelerates the development of an ion spot. The quality of focusing in the center and at the edges of the screen depends greatly on the position of the focusing coil and the construction of the deflecting system.

In some cases, the tubes must be shielded from external magnetic fields. A shield of "armco" or another magnetic material with high magnetic permeability can be used for audio-frequency fields. Copper shields should be used for protection from radio-frequency fields. The kinescopes can be mounted in any position.

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CHARACTERISTIC	IOLK2B	13LK+B	18LK2B	18LK15	23LK:B	23LK28	31LK1B
RATED FILAMENT VOLTAGE, V	1.5	6.3	6.3	6.3	6.3	6.3	6.3
Max " " , v	1.65	7.0	7.0	7.0	7.0	7.0	7.0
MIN " , V	1.4	5.7	5.7	5.7	5.7	5.7	5.7
FILAMENT CURRENT, A	2.5 ± 0.1	0.55 +0.10	0.55 ±0.10 -0.08	0.55 +0.10	0.55 +0.10	0.55 +0.10	0.55 +0.10
MAX ANODE VOLTAGE, KV	22	9	16	6	9	12	12
MIN " , KV	81	6	, 4		7	9	8
RATED ANODE VOLTAGE (FOR TYPICAL OPERATION), K	v 20	7	15	4	8	10	10
MAX BEAM CURRENT, JA	200	100	100	.00	100	100	150
	·50 to -120	-60 то -95		:5 TO -CO	-35 to -75	•	-35 10 -75
MAX CHANGE OF MODULATOR VOLTAGE, V	40 (•4	25 (*5)	20 (*6)	30 (*4)	30 (*)1)	ı8 <b>(∗</b> 5)	30 (*4)
PICTURE SIZE, MM	54 x 72	70 × 93 €	x 112 or 100 x 100	100 x 135	35 x 180 135	x 180 on 160 x 160	180 x 240
SCREEN BRIGHTNESS, MILLISTILBS	100	7	10	3.2	l;	3.2	5
PICTURE CONTRAST (#2)	1 40	1:35	•:50		.=40	1:40	1:40
MAX CATHODE-TO-FILAMENT VOLTAGE (#3), V			175	125	125	175	
LIFE, HRS				500 (*7			125 500 (*9)

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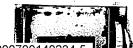
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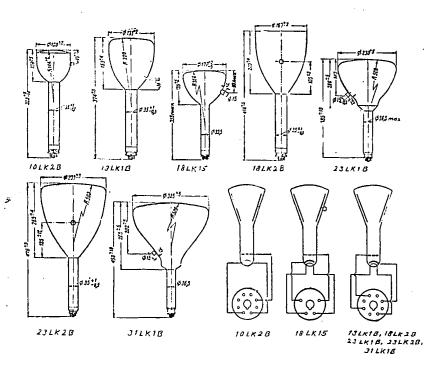
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Dimensions and Base Diagrams for Soviet Kinescopes

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